

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/19/2010 has been entered.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

Seventeen (17) sheets of drawings were filed on 12/20/2005 and have been accepted by the examiner.

Specification

Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification

Allowable Subject Matter

Claims 1-3, and 5-38 are allowed.

The following is an examiner's statement of reasons for allowance: The prior art cited on the attached from PTO-892 and/or on the Information Disclosure Statement filed by the Applicant, is the most relevant prior art known, however, the invention of Claims 1-3, and 5-38 distinguishes over the prior art of record for the following reasons. The closest prior arts of record belong to Wadsworth (2004/0151450 – US) and Kawanishi (2001/002667 – US).

In regards to Claim 1, Wadsworth teaches a waveguide made from photonic crystals with two folds symmetry about the longitudinal axis wherein it has a boundary region (470).

Wadsworth is silent to wherein the boundary region comprises a plurality of relatively high refractive index boundary veins joined end-to-end around the core region at boundary nodes each boundary node being joined between two boundary veins and to at least one relatively high refractive index region of the cladding region, wherein the boundary region the boundary region has at most tow fold rotational symmetry at leas in part due to one or more boundary veins having different properties than other boundary veins or at least in part due to one or more boundary nodes having different properties than other boundary nodes.

In regards to the prior art of Kawanishi, wherein Kawanishi teaches a waveguide with a core region having a clad region wherein the boundary of the clad region having two-fold symmetry. However, Kawanishi does not teach the boundary region comprises a plurality of relatively high refractive index boundary veins joined end-to-end around the core region at boundary nodes each boundary node being joined between two

boundary veins and to at least one relatively high refractive index region of the cladding region, wherein the boundary region the boundary region has at most tow fold rotational symmetry at leas in part due to one or more boundary veins having different properties than other boundary veins or at least in part due to one or more boundary nodes having different properties than other boundary nodes.

Claims 2-3, and 5-38 depends on Claim 1.

Thus, with no teaching from the prior art, and without the benefit of applicant's teachings, there is no motivation for one of ordinary skill in the art to combine/modify the prior art of record in a manner so as to create the claimed invention.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HOANG TRAN whose telephone number is (571)272-5049. The examiner can normally be reached on 9:00AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Uyen-Chau Le can be reached on 571-272-2397. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hoang Tran/
Examiner, Art Unit 2874

/UYEN-CHAU N. LE/
Supervisory Patent Examiner, Art Unit 2874